

CLAIMS

1. A tyre self-sealing device for a vehicle wheel equipped with a tyre inflating and deflating valve that ensures a supply of compressed air by means of a pressurised
5 circuit, **wherein** the valve (12) is positioned between the wheel (2) and the wheel hub (5) and wherein it comprises sealing means (19) integrated into the wheel supply circuit, said means (19) being activated in the open position in the presence of the valve and in the closed position in the
10 absence of the valve.

2. A self-sealing device according to Claim 1, wherein the sealing means (19) are constituted by a finger (30) extended by a truncated cone-shaped part (31) able to move under the action of a spring (32) inside a bore (18) made in
15 the wheel supply circuit, said truncated cone-shaped part (31) able to be applied against a seat (33) having a cone-shaped profile under the action of a spring to close the wheel supply circuit.

3. A self-sealing device according to Claims 1 or 2,
20 wherein the valve (12) is constituted of a valve bonnet (13) and a seat (14) and wherein it forms a case delimited by the hub (5) and the bonnet, both fitted with communication means to enable the provision of compressed air to the wheel (1) from a revolving joint (9), the seat (14) being placed on the
25 wheel and the valve bonnet (13) on the hub supporting the wheel.

4. A self-sealing device according to any one of the above Claims, wherein the valve's axis of symmetry is the same as the wheel's axis of spin.

30 5. A self-sealing device according to Claim 4, wherein the sealing means (19) are arranged so as to act axially with respect to the wheel.

6. A self-sealing device according to Claim 5, wherein the valve (12) is screwed into the hub (5).

35 7. A self-sealing device according to Claim 6, wherein the seat (14) is provided with an indexing organ (15) with respect to the hub.

8. A self-sealing device according to Claim 7, wherein the indexing (15) organ is a screw.

9. A self-sealing device according to Claim 4, wherein the sealing means (19) are placed so as to act radially with respect to the wheel (2).

10. A self-sealing device according to Claim 9, wherein the valve seat (14) is extended by a substantially truncated cone-shaped part (43) intended to cooperate with the sealing means, said extension being fitted with communication means (44, 45) between valve (12) and wheel (1) and wherein the wheel rim (2) of the wheel (1) is closed to the exterior.

11. A self-sealing device according to Claim 10, wherein the valve bonnet (13) is held in the hub (5) by friction.

12. A self-sealing device according to Claim 9, wherein the seat (14) is extended by a substantially cylindrical part capped by a plug (55) having a ramp (57) intended to cooperate with the sealing means (19), said plug being screwed onto said part and wherein the wheel (1) is open to the exterior.

13. A self-sealing device according to Claims 10 to 12, wherein it incorporates sealing means positioned so as to ensure a gradual depressurisation of the chamber (54) when the valve is dismantled.

14. A self-sealing device according to Claim 5, wherein the seat (14) is fastened to the wheel rim (2).

15. A self-sealing device according to Claim 14, wherein the wheel rim is provided with a tubular insert (60) onto which the valve is fastened using pressure screws (61).

16. A self-sealing device according to one of the above Claims, wherein it incorporates means positioned such that they ensure sealing until the sealing means are completely closed.